"Midnite": the hour when a small group of PET(tm) users in Central Illinois write a newly popular newsletter. Welcome to issue #3. We now have readers as distant as New Zealand & Eire, a standing order for 50 copies from SCOPE in Texas, a floppy disk edition for TORPET's 370 members in Toronto & 300 envelopes on hand to mail. Special thanks to Cursor, Micro, & Kilobaud magazines for mentioning us.

Thanks to generous readers who helped with past printer bills. A 16-page issue costs $150 (about $100 more than we have). Have you noticed each issue has doubled in size? We see why no one else does this...Help!

International readers may now send $1US per addressed envelope, & we'll provide airmail stamps. We prefer #10 business envelopes, no more than 4 at a time, & say on each envelope which issue goes inside. No envelope, no issue. By the way, similar "SASE" newsletters are now available from Eastern House Software & Kobetek Systems Ltd.

This issue CIPUG welcomes 3 new reviewers: John O'hare (JDO), Jeff Porter (JP), & Jim Tucker (JT). Ellen Strasma (ES) is co-editor. Jim Strasma (JS), Jim Oldfield (JO) & Brent Anderson (BA) also contributed reviews.

HINTS

To undo 'new', using Toolkit, enter 'poke 1026,4:sys 50242', (or 46262 in Basic 4, 50227 in Basic 1). Then enter 'find it', & you will! (Peter Calver, in Printout)

Key locations in Invaders: $0E01 sets the speed you move & fire, normally 2. $0E09 controls invader firing speed, usually 4. $0E0E is the mother ship's speed, usually 6. Finally, $0623 is the character after missiles to erase them--try $66 for Wall Invaders. (Paul Higginbottom, Commodore Canada, in Printout)

Here's a way for programs to learn if your PET has 40 or 80 columns. "wd=80:poke 8*4096+4*256,ch:if peek(8*4096)=ch then wd=40"-Jim Butterfield

EDITORIALS

#1) Henry Chow wonders if a RAM board, (see ADOPT-A-ROM review) should exist. It certainly eliminates the need for dummy ROMs. Though useful ROMs could also be bypassed, thousands of PET owners gladly paid $50 for the convenience of Basic Programmer's Toolkit in ROM. Who wants to reload it after each reset, even from disk?

The best protection may be a good product, reasonably priced, with good support & documentation. Most folks don't cheat their helpers. Studying programs how I learned. If micros are to make America a better place for common people, then programs must be understandable. Secrets are rarely helpful in this life. The programmers I most admire, write readable, changeable programs, even though it costs them sales. It's a matter of democracy, not capitalism.

There's also the question of cooperation. When CIPUG got HESLIST (see review), it didn't work with Basic 4's added commands. Two hours later, it did; everyone benefits. The same happened to Extramon via Jim Butterfield. Without co-operation, the fanciest micro game might still be Wumpus!

On the other hand, there's no excuse for selling the work of others as own's own. One solution is either cut them off from advertising or expose the theft. Sieg Deleu of Kobetek Systems, creator of Dial-A-ROM, reports he sold a DIAL-A-ROM to the company that shortly thereafter began advertising Select-A-ROM. Funny how they both switch 6 ROMs in a similar case, with a similar switch, with a similar connection to PET. Don't send us a review of Select-A-ROM unless you can prove it's original.

Along the same lines, we've heard from 2 reliable Dutch sources that U.S. copyrights are not respected in Holland. Both the Toolkit & Rabbit ROMs have been pirated there. Will sane authors send programs to Holland?-JS

#2) CBM ETHICS: 2 users sent detailed articles about Commodore, & asked Midnite to comment. One article is from the March 2, 1981 issue of Barron's. The others are from the OEM Computer Newspaper for November 16, 1980 & March 16, 1981. The gist of the first article is that Commodore got some of its capital by shady, if not illegal, stock practices over several years. A second article tells how Commodore ditched its wholesale distributers. The third quotes Chuck Peddle as leaving Commodore out of boredom. The fourth says the parting wasn't amiable -- Peddle & Commodore are sueing each other for millions of dollars.

By all accounts, Commodore was in trouble in the mid '70s. Badly bruised by calculator wars, they found rescue in newly-acquired MOS Technology & Chuck Peddle's idea for PET. It was an instant success, marred only by total orientation to immediate, not long-run, profit. Commodore's top management is expert at making money, never mind how. Eventually, those used along the way left, employees, dealers, wholesalers... In my opinion, Commodore must either clean up its act, or move to greener fields. Meanwhile, the bosses have multi-millions, & like the rich throughout history, they fight over them. Commodore is unlikely to ever win a 'Good-Guy' award. That's OK when you're number 1, but not when you're number 3 & fading... To their credit, many low to middle eschelon Commodore employees are marvelously helpful--Barron's implies the rot is at the top.

I marvel at how a company so run turns out such marvelous computers. Technically, PET is superior to Apple, & way ahead of TRS-80. Atari, with its kiddie Basic, isn't even in the same league. But with Peddle, Seiler, Yob, Lehr, Skyles & many others gone, prospects are dimmer. Buy your add-ons in standard RS232 versions. Then you'll always be able to use them no matter how the computer wars turn out-JS

PROPOSED STANDARDS

Programs which hope to be Commodore-Approved in the U.K. must meet input standards. Here are the standards to consider:
 1) Each screen to be titled in top line(s)
 2) Status line to show what to do next, errors, what's happening
 3) [shifted return]=accept screen of info
 4) 'c' continues to next screen
 5) full horizontal cursor control during field editing
 6) [home]=goto start of field #1
 7) [clr]=restore original screen contents
 8) [return]=accept field, & goto next field
 9) [up]=goto last field; [down]=goto next field
 10) [stop]=goto menu or print 'help' message
 11) after [shifted return] or going beyond last field, allow 'accept or reject' of screen. If reject chosen, allow re-edit
 12) sc$ is the screen data array
 13) the [stop] key is to be disabled
Paul Higginbottom (Commodore Canada), has written an Input Editor to aid in meeting the standards.

INVITATION TO IMPORTERS

Here's what Yanks are missing, as of Christmas '80, according to Printout. How about offering these products here? (prices approximate, at $2.45/Pound.)

TURNKEY ROMS. Auto-start; screen dump to printer or RAM; disables [stop] without stopping TI$; Commodore's "Wedge" & "Input Editor". $294
SUPERCHIP. Co-exists with Toolkit. Programmable repeat, fancy insert, delete & scrolling. Protects up to 9 screen lines. [stop] key makes next key hit a control character. Retrace backs thru last 10 lines executed. Reverse & Movit do. Keypad

becomes 10 user-defined functions. $110
    MIKRO ASSEMBLER. 4k ROM. Edited via Basic, even with Toolkit. $123*
    PIC CHIP. Fancy plotting with standard PET graphics. $123
    BB DOS. Runs Computhink programs on Commodore disk! $368
    NETKIT. Bidirectional RS232 interface with programmable code conversion. Makes
input look as tho from keyboard. Uses memory port. $331
    PANTEL CASSETTE DECK. PET compatible, with stable heads, tape counter,
alignment tape, power/data LED, audible loading. $147
    KINGSTON REPEAT KEY. Hardware-repeat key. Deluxe version has warm-reset key &
audible tone on entry. $43 & $86
    BAR CODE READER. $2,879!!!

Great, but amazingly expensive. Who pays those prices? It may cut costs if copies
are produced here, mailing only royalties. (Sources not listed, as we've not seen
the products. Full info in Printout.)-JS

                                  USER NEWS

Dear Mr. Gazette,
    Your name has been selected from a computer-generated list, & you may be the
winner of a free...oops, wrong form letter.
    The Toronto Pet group is hanging together a Pet Bulletin Board System ...a
little shaky yet, but running typically 8PM to 8AM. The number is 416/923-1917.
-Jim Butterfield

Someone interested in starting a PET user group is DAN UNDERWOOD, of Phoenix AZ.
He dabbles in astrology. Arizona PETters or astrology buffs may contact him at
3202 W. Roma Av., Phoenix AZ 85017

COMMODORE DEALERS are forming their own user group too, called DISC, &
headquartered in Atlanta. It is intended to help dealers find & evaluate CBM
software. Contact President Alex Amor, 50 W. 68 AV. Miami, FL 33126   305/261-7866
or Philip Snedecor, Jr., 1119 Wilderness Trail, Richardson TX 75080   214/669-1758

PHILIP CHAO is starting a user group for user groups. He wants to copy every U.S.
user group's library, to organize it all, & provide low cost copies. TPUG, which
has over 100 disks, thinks he doesn't know what he's getting into. I agree, but
it's still a good idea, & no crazier than the MIDNITE 6 months ago. He now has
many of our ATUG disks, & 100 empty diskettes to hold what other user groups may
send. Other users in upstate NY should probably help out. Write him at POB 387,
Rochester NY 14642-JS

Anyone for a PYRAMID SCHEME? If so, write R. H. WAGNER, 5031 Hampton Ct.,
Westminster CA. 92683. Apparently Wagner has started a "perpetual PET program
pyramid" in which those at the bottom of the list send exchangeable programs to
those at the top. A gimmick, but cute. If my experience is typical, don't hold
your breath waiting for the programs to pour in. (They have, but not because of
the pyramid!)-JS

                                COMMODORE NEWS

 Commodore has 2 names for Upgrade Basic. CIPUG calls it 3.0, since there is
confusion as to whether 2.0 refers to it or the 019 ROM.
    There is a DEALER HOTLINE now. The next time your dealer can't answer a PET
question, ask them to call 800/523-5622, between 8:30 & 5:30EST M-F. Friendly &
well-informed.

    According to "hotline", Commodore's only source for 9" video tubes is

phasing them out. That means all PETs may soon have 12" screens. Will this kill the 40 column PET? Commodore no longer stocks 40 column business-keyboard PETs. Bill Seiler once converted a 9" PET screen to 80 column operation with some cuts & jumpers on the video board, & add-on screen memory. Inventors, how about developing one for sale? Make it switchable between 40 & 80 columns, please—JS

Vacationing in May? BA & JS will be at the NATIONAL COMPUTER CONFERENCE in Chicago on May 4. That's the day Commodore plans to unveil a "MICRO-MAINFRAME" & a 5-1/4" 5 megabyte hard disk. Corvus is advertising a hard disk for PET, but apparently this is different, & cheaper. The Micro-Mainframe is a 128k RAM machine, with 96k available for programs in Basic, APL, Fortran, Pascal & Assembly language. It was developed at Waterloo University in Ontario, & includes RS232 communications, & both 6502 & 6809 processors. Delivery by Christmas? JS hopes to see it at Waterloo on his way to a TPUG WEST meeting & church computer conference in Toronto, May 20-24.

The VOICE SYNTHESIZER looks like a 1930's AM radio. Commodore Chicago sells it with a disk program that gives it a 4000 word vocabulary. Lyle Phillips saw it & was "mildly impressed. It is better than the Radio Shack, but still sounded mechanical. Limited use. Perhaps for handicapped & education."

New products may do in others previously announced. 8096 is now just a 64k add-on for 8032, not a new model, & expected this summer. Basic won't know added memory is there, but revised Visicalcs & Word Pro's apparently will. Barring more changes, it may work with 40 col. PETs. 8062 & 8063 8" disks may not appear. They cost as much as a hard disk, & store less. A double-sided 2MB version of the 8050 is rumored.

Commodore has announced an INTEGER COMPILER for $150, intended to be out when you read this, & able to handle all PET commands. If it works, it will allow fast-running programs to be developed more easily, & make copyright notices more permanent.

Commodore's new plan for COPY PROTECTION is the Dongle, a cassette port connector that is serial-numbered & readable by software. If dongle # matched PET serial #, this would be a great idea, but it doesn't. To use 5 protected products, you'll need 5 dongles. Commodore already has trouble with cassette ports wearing out. On the other hand, this way any PET can run that one copy. Great for travelers with a PET in every port. Looks like a "Dial-a-Dongle" in your future.

There are 2 BUGS in the 8050 DISK. 1)If 2 relatives files with the same record length are open at once, 1 reading & the other writing, data may go to the wrong file. The cure is a short delay loop between reading & writing. 2)If, in using copy command on some (but not all) 8050s, you try to "copy d0 to d1" or vise versa, early units may quit with a false error after copying 8 files. Use Copy program instead.

Reader Gerald Key managed to do in the UK6 chip in his 2040 DISK while converting some files. The program to be converted existed on both drives, & UK6 wore itself out trying to decide which version to read.

Speaking of repairs, I highly recommend Commodore's SERVICE SCHOOL, tuition $350, for dealers only. Provides over 500 pages of repair instructions, 2 clip-on ROM-based testers, several test diskettes & cassettes, 3 days of instruction, & free lunch! Teacher Bob Fairbairn provides honest full answers to many tough questions.-JS

Let's hear about good COMMODORE DEALERS. Reader Candy Jens wrote praising A.B. Computers, of Montgomeryville, PA. for "good material, good prices, speedy delivery." CIPUG agrees. We've heard only good comments in 3 years of buying from them. NEECO, of Needham, MA, was listed as a "good guy" dealer in the old PET GAZETTE. JS affirms their wholesale division is still good to dealers. What about others? Computer Mail Order in Williamsport, PA, for instance? Anyone dealt with them?

HARDWARE REVIEWS:

CBM 8032 COMPUTER, $1795 from Commodore. 80 column screen, business keyboard, 32K. Great new features include: repeating cursor control keys & bell, variable screen windows, can set screen at very low brightness, & have 3 more columns in Visicalc (no more claustrophobia with 40 col. version!). Negative factors include: unpleasant reading from inferior characters (5X8 dots instead of 8X8 on 40 col.); in office setting, can't set screen brightness high enough to read near windows; & noticeably cheaper, harder-to-use keyboard than early 32K-B PET version from High-Tech. Since High Tech keyboard sells for $30 retail, why did Commodore economize here? "B" key has already quit; replacement keyboard coming.

All but 1 Basic ROM soldered in. Does this mean the company offering 3 Basics in 3 years will no longer change ROMs? Hard to believe. 4 missing sockets are worth less than $6. Some customers successfully insisted sockets be installed before accepting delivery. I recommend that; if Commodore has to fix several hundred, sockets may become standard again. In beauty, some like it; some don't. For games, have yet to see any with graphics.

Converted major business software package from Wang to PET last month; with its 80-col. screen, was far easier task than similar work done earlier on 40-col. screen. New screen & relative records of new 4040 & 8050 disks make many minicomputer programs usable on PET. In sum, the 8032 is improved, but chintzy in stupid ways. For business use, get it till next model comes. For home, save $500, unless Commodore abandons 40 column format.-J&ES

NOTE: The 2 CBM printers below exist, but need full reviews.

4022 PRINTER, $795 from Commodore. Replacement for 2022. Epson MX80 at heart, with PET graphics & formatting, & costs at least $150 more. In stock at dealer's an hour away, but none of us have dropped by yet.-JS

8024 PRINTER, $1700 from Commodore. FAST tractor-feed printer for business users who don't mind dot matrix, (7X7 & 7X9 available), & need 132 pica columns on 15" paper. 160 cps, bi-directional, logic-seeking, with high-speed slew. No PET graphics. 6 or 8 lines/inch. Enhanced characters available. Rear loading, with paper-out alarm. A quiet 58 db. Its maker, Tally, known for very good printers & gives immediate on-site service if needed.-JS

EPSON MX-80 PRINTER, $500-650, depending on dealer. 9x9 dot matrix. "An amazing animal...simple...close to correspondence- quality printing. I especially like the smaller printing in the 132 column format."-Lyle Phillips
Don't get Epson's IEEE interface. Ones we've seen substitute TRS-80 graphics for lower-case. Lyle uses, & likes PIE interface. We've also tried, but not yet succeeded with CMC 1600 interface.-JS

STARWRITER PRINTER, $1,390-2,000 depending on dealer, plus interface. 25 cps Diablo friction-feed mechanism, with electronics by C. Itoh of Japan. 15" carriage. Centronics parallel or RS232 serial versions available (I chose serial for its simpler cable). 65 db, so you may prefer it in closet! Bi-directional, logic-seeking printing, with high-speed tabs in all directions. As fast as 2023 in normal use. Higher speed, tractors, & sheet feeders optional. Use it with Word

Pro, MAE, & for listings. Also includes Diablo's famous graphics plot capability. Friction-feed skewing noticable after 5 pages. Prints single sheets w/i 4 lines of page end w/o slipping. Excellent print quality (you're looking at it). Highly recommended-JS

1450 PRINTER INTERFACE, $130 from Connecticut Microcomputers, including case & power supply. Set for 300 baud, even parity, & one stop bit. Only baud rate is adjustable, with screwdriver & included program. Other settings changed by adding jumper block, but not documented. 1 instruction page.-JS

PIE-C PRINTER INTERFACE, $120 from Lem-Data Products. Corrects lower-case, & makes Epson MX-80 work with PET. Plugs vertically into PET's back with side IEEE edge connector on side. Be VERY careful not to flex it, as leverage of vertical mounting could crack mother board. Avoiding this problem costs $40 for extra PET-to-IEEE cable. Draws power from Epson, requiring jumper to connector from MX-80. Hookup may void MX-80 warrantee. Very good instructions, easily adjustable & works well-JS

More on CBM MODEM (see m#2). Manual finally arrived (all 11 pages). 3 very short program listings, for using it PET to PET, PET to Source, & in testing. We're still underwhelmed-JS

PETTERM II MODEM PROGRAM,$90 (includes interface) from FSS Software. Makes PET a really intelligent terminal. For remote system being accessed, will accommodate: carriage return, carriage return & line feed, or just line feed; even, odd or mark parity; 300,150 or 110 baud; & full or half duplex. Big time saver is "Learn", which stores message; then "Message x" (your ID) & "Message y"(your password) are sent to systems with 2 strokes each. "Printer" sends all screen input to printer as well. Since PETTERM makes proper, problem-free connection to The Source, Micronet, etc., there is no reason for PET people to depend on The Source for software. Also available: PETTERM I($80) & PETTERM III($100).-Ed Ricchezza

More on SOURCE (see M#2). "Evidently put their house in order, because documentation quite comprehensive. 'Mail' & 'Chat' features alone make cost worth while. For instance, the other night, sent a 'Mail' to a Los Angeles friend & had reply the following nite. Big thrill!"-Ed Ricchezza

TNW MODEM,$389 from TNW Corporation. "Hardware is great. Modem simply plugs into IEEE bus...only 1 adjustment to make...In 8 months I've had modem, almost all communications have been virtually error-free. Documentation...can only be considered extravagant. TNW software package turns PET into reasonably intelligent terminal. CB2 sound option used for bell function. Allows numbers to be dialed directly from keyboard...software-selectable options include: case, baud rate, half or full duplex, parity, character set (ASCII or PET), control character display, etc...Ability to dump to disk added as after-thought...Willing to help or answer questions-if you get hold of right person."-Wayne Drouillard-TCI391

ADOPT-A-ROM RAM BOARD, $50-75 from Robert Mergy, 1163 Peterlynn Dr, San Diego CA 92154. 4k memory board that plugs into PET ROM socket. Write-protected until PET turned off. If enough readers write him, Bob will make some. Mine works very well. Imitates rarely needed ROMs, & stores new ROM programs, allowing me to test them before burning one.-JS

2114 RAM ADAPTER, $23 ($16 kit) from Optimized data systems. As needed, 4"x3" circuit board lets one replace 8 of 6550 RAM memory chips (4k) with longer lasting, more available, & cheaper 2114 RAMs (not included). Clear instructions,

easily installed, hints to use adapter for cheap memory expansion or screen RAM replacement. Very reliable after 2 months use.-BA

REAL-TIME SPECTRUM ANALYZER, $600 from Eventide Clockworks. "I purchased my PET because of this analyzer." As electrical-accoustical engineer, I use this type of equipment to test & evaluate various accoustical environments. For price of board plus PET, you have piece of equipment which outperforms other real-time analyzers selling up to $5000. Software-based, so uses are unlimited.-Lyle Phillips

VISIBLE MEMORY, $495 (8032 model) from Micro Technology Unlimited. Versions for all PETs. "Fits inside Pet & allows each pixel to be controlled. Normal PET video can be used with or w/o graphics video. Software available or programmed from BASIC. All other programs unchanged. On 8-16K machines, when graphics not used, 8K video RAM can be used for programs."-Arthur Cochrane

WATANABE WX4671 DIGIPLOT PLOTTER, $1400 from Skyles Electric Works. "Phenomenal accuracy, "B" size plot, excellent printing, good instructions. Nice demo disk. Not too shabby on speed either."-John Mielke

DISK REVIEWS

DISKETTES: I've used Dysan, Scotch, Maxell, Memorex, Basf, Immac, Syncom & Verbatim, in order of reliability. I buy only Dysan & Scotch diskettes. Verbatims, usually fail to initialize, & are very noisy. I am rarely able to "new" Verbatim diskettes. Transactor says Verbatim "Datalife"s are better. Commodore U.S. uses Dysans. I buy Scotch diskettes at $2.85 per box of 10 from A.B. Computers. If you must spend less, Robert Baker sells Memorex diskettes for $2 each. They usually work; received 1st bad one this week.-JS

STAY-FLAT MAILERS, $17 per 100, from Calumet Carton Co. Photo mailers, but size #1 protects mini-diskettes. In a year of use, only 1 failed to arrive safely. (Folded in 1/2 & stuffed in a P.O. Box.) Reused 4+ times with no hassles. Very highly recommended.-JS

HINT ON MAILING: X-rays may erase magnetic media. Wrapping in aluminum foil gives some protection, as does well-padded box.

ON DOUBLE-SIDING DISKETTES: Don't! 1) When flipped, the diskette rotates in reverse, pulling dirt back onto the surface from the pad; 2) Commodore says 2040 drives may write-thru to the reverse surface.-JS

HUB RING KIT, $10 from Meta Technologies. Reinforces diskette center hole. Plastic centering tool & 25 mylar rings. 50 more rings are $5. Quick & easy. However, even more easy & precise to buy diskettes with rings included. Disks with a hub ring always work for us, no matter the brand. But what if the glue migrates? Because 2040 Shugart drives are rough on center holes, I recommend hub rings for diskettes likely to be abused. However, Commodore does NOT recommend them for high-precision 8050 Micropolis drives.-JS

DISKETTE CLEANERS: TOTAL rip-off. Whole design of disk drive is self-cleaning. Each diskette is lined with dirt-catching pad. If your drive is noisy, you may have dirty head pressure pad ($.25 piece of felt). Turn it 90 degrees to double its life. Replace after 2 years daily use.-JS

MAGAZINE REVIEWS

Here are our opinions of magazines with PET material (monthly unless specified): Byte, $19/yr. General (token PET coverage). When sold, quality did NOT suffer:

still top-notch (if not best for non-PETters) magazine. If you consider price vs. pages per issue, it's a bargain. Why do I subscribe? The ads!-JO

Compute!, $20/yr. Best PET articles. PET GAZETTE section features some of best authors in PETdom (Butterfield, Baker, et al). Program listings, helpful programming tips & trouble shooting hardware & software PET makes good reading. If you subscribe to only 1 mag., COMPUTE! is it-JO

Computer Shopper, $10/yr. Newspaper format. Contains free ads for new/used computers, accessories & software for many micro-computers. Good source when want to buy or sell computer equipment on tight budget. I sold my Apple II & bought my 32k PET through them. Worth my subscription!-JO

Creative Computing, $20/yr. I read this cover to cover (except R.S. articles) . Excellent reading material for beginning computer owner. Program listings in each issue (normally in BASIC) from games to utilities. Bi-monthly PET column by Gregory Yob. If you've never heard of it, where have you been?-JO

Infoworld, $18/yr, Biweekly. Timely news. Excellent software reviews, but none on PET. Recommended for those who like to keep completely up-to-date.-JS

Interface Age, $18/yr. Business oriented, few PET ads or articles. Good general business articles.-JS

Kilobaud Microcomputing, $25/yr. Supports PET better than any other large-circulation magazine. Prominent PETpourrie column for over 2 years. Devoted whole September '80 issue to PET. PET articles every month. Well balanced between hardware & software, personal, business, & educational users at all levels of skill. Recommended.-JS

MICRO, $18/yr. Oriented to 6502 assembly-language programs & hardware. New PET column, with 1-3 PET articles per month. Not for beginners, but my favorite since 6 mo. after I got my PET. HIghly recommended.-JS

MIDNITE SOFTWARE GAZETTE, Donations, quarterly. "Remarkably informative & whimsical - a rare combination."-Paul Eckert

PRINTOUT, $45/10 issues. Independent PET magazine of Britain. Well done & glossy. All PET (great for morale). Very witty & informal. Lots of reviews. Fewer usable programs. Amazing list of available PET products, all VERY costly.-JS

TRANSACTOR, $11/yr, Bimonthly. Commodore Canada's newsletter. Official, & VERY informative. Issue 7's summary of PET info worth its weight in gold. Commodore Canada refunded money to Canadian PET owners foolish enough to order vol.2 of U.S. PET USER CLUB NEWSLETTER. Commodore U.S. should give up, & import Transactor.-JS

BUSINESS REVIEWS

EDITOR'S NOTE: The following condensed from 3 page original. Joe deleted recommendation paragraph after receiving more dealer support.-JS

BEC ACCOUNTING SYSTEM, approx. $1000 from Business Equipment Compuserve. Needs 32k memory, CBM disk & printer. Interactive accounting package of 7 programs, including General ledger, Accounts receivable, Accounts payable & Payroll. REsults of some programs automatically posted to others. Inventory, Job cost, & Mail list stand alone. GL handles up to 1,000 accounts & 4,400 transactions, using 2040 disk. All programs edit, add, delete, list files, print reports, etc.

& follow Osborne accounting format.

3 companies on this system & reasonably satisfied, but hasn't been easy. Payroll does detailed reports, writes checks, 941 reports & W2's & provides current, quarterly, & year-to-date info on check stubs as well as the report. Details deductions. Data posted to GL journal automatically. Accurate & fairly fast. Only required inputs: # of regular & overtime units worked. Variable periods option.

GL more difficult to implement. Documentation sketchy. Very difficult to determine when to post. Took 3 months to learn how to edit beginning or year-to-date balances. Fairly good prompts; however, used different names for same files.

Needs less capacity & less disk shuffling. Capacity severely restricted by time reading, sorting, & printing. At 1500 transactions, takes 7 hrs. to prepare monthly report.

Update ROM & disks corrected some bugs. Arrived sans documentation. Some account numbers had been changed. We stepped all over files to which we'd assigned those codes, causing tedious manual reconstruction. Update provides upper/lower case, but had to enter marital status in lower case or all deductions made from single tax tables.

Extended warranty is kindly voice on phone, sympathizing, & informing us if we modified any program part, our warranty was invalid.-Joe Suddoth

More on COLUPAD, see M#2. Protected. NEeds 32k. Features include: add, subtract, multiply, & divide 1 column by another; use constants, description & instruction file; merge data from 1 file to another; call & print each automatically numbered pad page (1 file) separately or entire "book" with summaries, column & page subtotals, & totals; screen entry form; 24 column-40 row "accountant's worksheet" format; accepts alpha & numeric column values. Good editing, but can't subtotal rows.-John Ellison

FILE CABINET, $65 from Progress Computers. Data base manager, simple but with twist. 18 programs use PET overlay programming, filling only 6K at a time. Not ISAM, but FAST ml sort module makes it faster to use; Does multiple subsorts. Good manual if you know data bases. Menu-driver with excellent prompts & good error recover options. Special uses include: Word Pro 3 &4 files read into it as data; optional "PR" (print) module sends partial file to disk for Word Pro to load. Minus: no "browse" function in "Edit", (but can be done crudely). Should have "forward character suppression" at points to prevent goofs. All in all, a fair price for an excellent package.-JT

JINSAM 4.0 [for 4032], $300, & JINSAM 8.0 [for 8032], $400 from Jini Micro Systems. Need basic 4 & Commodore disk with DOS 2. By far best database program for CBM systems currently available. No other software firm has 1 with as many features & applications. Unlimited record length, up to 5 prime keys & unlimited defined keys plus unparalled machine language sort. Highly taunted "OZZ" no match for Jinsam. With "OZZ", have limited access, no sorting, & more importantly, no support (i.e., customized modules). For $40 more each, Jinsam provides WORD PRO & Visicalc interfaces, extensive math & statistical applications, with more to come. Available for 40 or 80 column machines.-Lyle Phillips

MAC, $795 from Bob West Publications. Church database package, for 8032 & Commodore 8050 or 4040 disk. Allows practical maximum of 2000 members. Uses 80 column screen to great advantage, to show all data for member family at once; screenprint utility dumps it easily to printer. Very polished, & designed for easy, idiot-proof use, but more limiting than I like. Handles name, 3-line address, 2 phone #s, S.S. class, 4 job/skill categories, pledge, year-to-date gifts, birthday, date of last attendance, & 1 "other" field. But not spouse name, kids' names, 12 month record of attendance, date of last pastoral visit, etc.

Capital letters, commas, semi colons & colons cannot be used in data, but are allowed. Data cannot be sent to any other program. Reports in member # order or alphabetically by name, but not in zip code order. Enter weekly contributions by member # (with automatic updating of last attendance date), but cannot update by name. No auto allocation of available records. In summary, I wish JINSAM were as easy to use, but I'll stay with JINSAM for now, because it's not limited by these problems & costs half as much. However, MAC shows great promise. I hope West keeps working on it.-JS

WORD PRO 4, $300 from Professional Software. Protected. Needs 32K, disk. Uses dummy ROM at $9000. "WORD PRO 3 for 80 column PET! PET word processing moved into professional market with this. All WORD PRO 3 features plus Begin Printing from any Page, & Output to VIdeo to see your output before it goes on paper."-Mike Kouri
(WORD PRO 4 PLUS is just out. More money & new features.)-ES

DYNATEXT, $5 from Brent Anderson,200 S. Century, Rantoul, IL. (JS's authorized PET version of Mitchell & Law's '79 "article of the year" word processor from Kilobaud.) "OF all the inexpensive word processors, your Dynatext is the best. I have tried or purchased the CMC, the Petshack, the Computer Factory & WOrd Pro 1. When, & if, I get a floppy, I may learn to love Word Pro III, as you do. Meanwhile, I'll live with my present version of the M. & L. text editor with my embellishments."-Harold Elrod

UTILITY REVIEWS

SUPERSORT, $35 from James Strasma, A.B. Computers, Eastern House Software, & Kobetek Systems Ltd. "Machine language sort for PET. Takes less than 1200 bytes at top of memory. Works with all current PET Basics & adjusts to any memory size as loads. Won't destroy other programs loaded into high memory. Can sort array of 3000 integers in less than 30 seconds.
  Sorts any BASIC string or integer array in ascending or descending order. Some options are: arrays can be 1 or 2 dimensional, & sorts can be specified on any desired field in 2nd dimension; can subsort other fields when match found in prime sort field; & can sort by bit mapping, with 8 categories per byte. Options set with simple POKE statements prior to calling Supersort via SYS. Command area used to pass parameters consists of 13 bytes in 2nd cassette buffer. Avoids parts of buffer used by Basic & DOS.
  During sort, 44 locations after 886 in buffer & 1st 44 locations in page zero are exchanged, then restored at end. Sorting only part of an array drastically speeds things up. Tell Supersort where real data ends & save up to 90% of usual sort time. Puts null string elements at top of sorted array, away from user data. Program sets variable ST to indicate errors which occur. STOP key still enabled, allowing you to terminate execution.
  I found it an excellent utility & apparently 'bullet proof.' Complete documentation, with very enlightening demo program. Worthwhile investment if you do any data manipulations. Why reinvent the wheel when you have this handy sort program? Source listing available from Jim Strasma ($10), once you've purchased Supersort."-Robert Baker
(Since JS is involved in Midnite, above condensed by JO from April, 1981 Kilobaud Microcomputing)

EDITOR/ASSEMBLER, $69 cassette from Elcomp Pub. Co. "Couldn't read instructions because copy was so bad."-Arthur Cochrane

HESLIST, $15 from Human Engineered Software. Needs CBM disk. CReates wonderfully structured listings from even the most crammed Basic programs. Doesn't recognize Basic 4's added commands as received, but soon will. Has amazingly good

documentation. Easy to change for special needs. A must for programmers with
ASCII printers. -JS

HESBAL & HESEDIT, $26+ from HES. Assembler/editor. Basic & machine-language.
Reasonably capable for its size. Only reasonable choice for PET owners limited to
8k of memory, or with non-Commodore disks or cassettes. Far better than Personal
Software's assembler. However, takes fairly long time to load & save data &
change from editor to assembler each time a mistake is found during assembly,
even with disk. Includes Micromon (latest version of Extramon, ATUG's favorite
PET monitor), which works on both Basic 3.0 & 4.0 PETs & features scrolling.-JS
(Micromon available in MAE source form from ATUG.)-JS

MAE for 8032, $170 from Eastern House Software. See 40 col. review in M#1. Screen
listings vastly easier to read with 80 cols. Notes errors with chime. Still my
favorite assembler, due to many users with compatible assemblers on other 6502
computers, variety of programs developed by these users over 2 years, & author
Carl Moser's continuing support.-JS

MONJANA/1, $98 from Elcomp Pub. Co. 2K ROM at $9000. "Has printer output,
disassembler, transfer, relocator, single stepping, memory dump, etc. Doesn't
interface to COmmodore monitor. Extramon much better & cheaper & has more
commands."-Arthur Cochrane

MACHINE LANGUAGE UTILITY PAC, $31 cassette from PS Software. "Has memory dump,
disassembler (decimal output), screen print, hex-decimal conversion, Basic
renumber & merge. Extramon again much better & easier to use."-Arthur Cochrane

TCL PASCAL, $350 from Commodore. For Basic 3.0 & Commodore disk. Supports
printer. Uses dummy ROM at $A000. 8032 version recently announced. "Fantastic.
Full-blown-USCD & much more. Well documented manual (quite thick)."-Lyle Phillips
Machine-language. Has 2 compilers: limited resident interactive one that does
small projects easily; & disk version that is full Pascal with extensions, able
to compile 3000 line programs. Can attach 10k run-time module of itself to object
files, allowing them to be run on any 16k+ PET with Basic 3. Also links several
object files into 1 program. Includes powerful screen editor much like Basic Aid.
Very readable manual with many examples in 1 section, & brief guide for
experienced users.-JS

KMMM PASCAL, $69 disk from AB Computers. "Very much like Tiny Pascal but Char,
Boolean, & Text types also supported. Floating point said to be coming. Has
interpreter but also translates p-code to 66502 machine code. Editor does not use
screen editing, though."-Arthur Cochrane

TINY PASCAL, $35 disk, $40 cassette from Abacus Software. "Good for learning
Pascal. Tape & disk supported. Trace & single step in Interpreter (listing
available for modification). Editor & compiler in Basic, so SLOW, but can be
modified. Editor uses Get instead of Input to read file; does not use screen
editing. Only I/O is keyboard & screen. Has Mem (like Peek-Poke) & Call (like
Sys) & decimal & hex input/output. Only Integer & array of Integer types
allowed."-Arthur Cochrane

MEM EXPLORER, $8 cassette from Micro Software Systems. "Prints out memory as
ASCII & prints out keywords along with memory contents. Information in PET/CBM
book & Basic program will do same thing."-Arthur Cochrane

REMpack, $10 from The Code Works. Removes all REMark statements, blanks, &
leading colons from programs. Loads to high memory or 2nd cassette buffer; called
by SYS. Works as advertised, & well documented in short manual with examples.

Handy, though I'd rather have it in Toolkit.-JO

SYMBOLIC/STRUCTURED BASIC, $36 from Softside Software. "Editor & translator in Basic, so SLOW. Converts While (cond) Gosub x to 10 If not (con) Gosub x:Goto 10 & Else to If not (cond) then. Disliked slow editing, translating, loading. Not a screen editor. Good programming is better."-Arthur Cochrane

EDUCATION REVIEWS

GRADE AVERAGES, $12 from Educational Activities. "Exactly what promised. Takes numeric & letter grades, calculates & gives both numeric & letter grade average for each student; then ranks highest to lowest average. "User friendly." 2 drawbacks: no info. storage (updating), & must retype names each time entered. Still worth the money."-John Melchior

Educational programs BELOW for ANY 8K Pet, from MICRO-ED, Inc. GENERAL COMMENTS: Unless noted, $8/cassette or 12 for $84. Protected. Catalog is instruction manual. Definitions built into programs. Clear, sound approaches to subject matter. Distinctive graphics/screen layout in problem presentations & feedback to student. Student can repeat problems until correct, ask for help, get detailed performance report, & as needed, choose difficulty level. Could use many programs/subroutines to teach other subjects. Worthwhile if need packaged education programs.-BA

TARGET MATH, Elementary. Add, subtract, multiply, divide. Super graphic feedback. Parachutist hits/misses target according to student's answer.

COUNT'EM, K-1st grade. Count pictured steam engines. Right answer chugs engine across screen. Wrong explodes it.

MATH SHOOTOUT, Elementary. Practice speed on add, subtract, multiply, divide. Graphic feedback on speed. Animated shootout with Bad Math Mac.

BAR GRAPH, Elementary. Graphs & varying information displayed. 10 problems require graphs to be read.

SUBJECT & PREDICATE, Elementary up. 20 random sentence problems identify simple/complete forms of subject/predicate.

CATCH THE RHYMING FISH, Elementary. Screen game. Catch fish whose word rhymes with problem or else your boat will sink.

DICTIONARY GUIDE WORDS, Elementary. 4 lessons. Put problem word between right guide word pair. PET flags pairs as used.

SPELLING WORDS IN CONTEXT, For each level of 2nd-6th grades. 36 lessons on 7 tapes($50). Teach spelling rule/pattern. 10 problems/lesson give sentences with desired words missing.

TROUBLESOME PRONOUNS, Elementary up. 20 problems in noun/ pronoun agreement. Game decides # of points per right & wrong answer. Great flashing screen routine on right answer.

SYNONYM SERIES, Sr. Hi up. 3 tapes for $21. 15 lessons, 30 problems each. Match word & synonym. Flag matches. Graphic feedback. Big smile face or gremlin.

WORD DEMONS (TO/TOO/TWO), Elementary. Intro grabs attention (shoots out letters to spell word demons). 10 random problems/lesson in using demons correctly.

WORD DEMONS (LAY/LIE), Elementary up. 20 problems. Select right verb from pair. Fine graphic feedback. "Word machine" visually processes student's answers.

DIRECTION & DISTANCE, Primary. Simple game teaches 8 directions (N, NE, etc). Also estimates distance.

GUIZINTA HOTEL, Elementary. Attractive game: Each elevator on screen stops only on certain floors. Choose right elevator to stop at 2 floors given in problem. (Teaches least common denominator.)

MATH SPIN, Elementary. Reaction response game chooses difficulty of multiplication problems generated for self/PET.

RECEIVED, BUT STILL BEING REVIEWED: 1) MATRIC, from Cognitive Products ($100 pkg.). Adds 12+ matrix commands to Basic 3.

GAME REVIEWS

ACTION GAMES, $8 from Creative Computing Software. Includes 6 games: Splat, Car race, Bowling, Tanks, Breakout, & Subs. All games are well done & use graphics, but about half won't run on 3.0 & 4.0 roms. Fair-JDO

B-1 BOMBER, $15 from Avalon Hill. Cassette. Needs 16k. Simple, but very challenging. Control altitude, heading, weapons, evasive action & electronics to penetrate Soviet defenses & drop nuclear bomb. Uses screen as teletype. Need good map of USSR west of Urals. Unprotected INPUTs-Gary Stone

NUKE WAR, $15 from Avalon Hill. Full-scale nuclear war strategy & planning game. Access to missile bases, bomber bases, nuclear subs, & defense missiles. Watch it tho, the computer has tricks. Fair-JDO
(Nuclear war is not an arcade game)-Mike Louder, paraphrased

DUNGEON OF DEATH, $8 from Instant Software. Fun for awhile, but games run too long, & get boring. Poor-JDO

ESCAPE FROM DEATH PLANET, $13 from Fantasy Games Software. Blast your way through storm troopers & killer robots as you try to rescue princess from 5-room space ship. Good graphics, & excellent sound effects. Good-JDO

EXPLORE, $20 from Channel Data. 4 adventures (Mall mixup, Tank battle, Spelunker, Beware, Haunted castle) plus self teaching practice adventure for beginners. Well written. Very good price. Recommended for everyone! Excellent-JDO

GREMLIN, $7 from Programma. You control a tank trying to destroy outposts before time runs out. Fun at first but lose interest quickly. Fair-JDO

HUNT, $20 from Programma. Mini adventure game, with 2 adventures, plus adventure builder program to create your own adventure. Good intro to programming; helps you understand how adventure games work. Fair-JDO

JURY HOSTAGE, $10 from USA. 2 games, 1 confusing, & both boring. Not recommended-JDO

LABYRINTH, $13 from Minnesota Micro Systems. Dungeon adventure. Explore castle (whose dimensions you pick) searching for chests of gold hidden on each level. Encounter ogres, goblins, spiders, & dragon. Objects help you reach your goal, such as swords, magic rings, keys. Good use of PET graphics; draws each level you

explore. Very good game-JDO

RESCUE AT RIGEL, $20 from Automated Simulations. To win, you must fight guards through 6-level space station on your search for 11 hostages held captive by High Tollah. Good-JDO

SPACE INVADERS, $10 from CMS Software & free from user groups. By Commodore Japan. "Most addictive game I have...in machine language. Just like the arcades."-JP

SWORD OF ZEDEK, $25 from Krell Software. Adventure in which you forge allies & gather treasure before RA (Master of Evil) attacks you. Would be good game w/o its many bugs. Fair-JDO

SWORDQUEST, $13 from Fantasy Games Software. Explore twisting corridors on your hazardous way to wizard's tomb, with hoards of demons & giant spiders to stop you. Luckily you have sword, bow & arrows, plus some magic arrows. If you make it, Jewels & Holy Sword are yours. Fair-JDO

TUNNEL VISION-KAT AND MOUSE, $8 from AB Computers. In TV, you try to escape from maze seen in perspective. In K & M, you see maze from above, & have to escape before cat catches you. Both use PET graphics well & are fun to play. Fair-JDO

ATUG NOTES:

ATUG is the ASM/TED & MAE Users' Group, devoted to developing assembly-languege skills via Carl Moser's assemblers. Led by JS, it is CIPUG's only public exchange. MIDNITE readers may request ATUG diskettes that contain useful utilities. Please donate good machine-language routines, free of copyright, & in source form. Object programs & utilities are also acceptable, but mean more work for us. JS's "Unassembler" article in MICRO's March issue tells how to turn an object program into MAE source form.

Newly available is ASM/TED compatible with MAE files, courtesy of TPUG. We'll provide it to registered ASM/TED owners. MAE, Macrotea, & ASM/TED can now use the same diskettes. MAE also includes an ASM/TED save/load module.

We need a volume system like TORPET in Canada. They have 1 person in charge of each software category. They circulate a new programs diskette, & each volume manager pulls from these. Currently, we have 4 volumes: UA for MAE source files, UB for Basic & object files, UC for Copyright-restricted files, & UD for Documentation in Wordpro3 format. In addition, we have Arrival disks 00 & 01, WPUG WA & WB, TORPET's ML1, 1/81 & 2/81 disks, O'ventures, & 2 MAE source disks for Basic Aid 4, Micromon, Commodore UK's Input Editor & Commodore U.S.'s real-time universal ROM fix program. Any volunteers to manage a volume?

We've tried recently not to charge for ATUG disks. That let us exchange more programs without hassles. However, it can't work unless users send quality disks, in an easily returnable mailer, with as much U.S. postage inside as was needed on the outside, a return mailing label, & a clear note about exactly which disk is wanted. For UC, you must subscribe to MICRO & COMPUTE (you should anyway!). Most users have been donating $5-10 a disk. That helps a lot. If you can't send all asked, we'd prefer you send $10 for disk, mailer, copying & postage than to send an off-brand disk in a homebrew mailer. This week we sent out over 30 diskettes. At that volume, make it easy, please.-J&ES

RESOURCES

RESOURCES

AB COMPUTERS	P.O. Box 516, Montgomeryville PA 18936
ABACUS SOFTWARE	P.O. Box 7211, Grand Rapids MI 49510
AUTOMATED SIMULATIONS	P.O. Box 4232, Mountain View CA 94040
AVALON HILL	4517 Harford Rd., Baltimore MD 21214
BOB WEST PUBLICATIONS	34 W. Main St., Brevard NC 28712
BUSINESS ENHANCEMENT COMPUSERVE, 1711 E.Valley Pkwy,S.109,Escondido CA 92027	
BYTE magazine	70 Main St., Petersborough NH 03458
CALUMET CARTON CO.	P.O. Box 405, South Holland IL 60473
CHANNEL DATA SYSTEMS	4141 State St., Santa Barbara CA 93017
CMS SOFTWARE	5115 Menefee Dr., Dallas TX 75277
THE CODE WORKS	P.O. Box 550, Goleta CA 93116
COMMODORE CANADA	3370 Pharmacy Av., Agincourt ONT CAN M1W 2K4
COMMODORE U.K.	360 Euston Rd., London ENG. NW1 3BL
COMMODORE U.S.A.	950 Rittenhouse Rd., Norristown PA 19401
COMPUTE magazine	P.O. Box 5406, Greensboro NC 27403
COMPUTER SHOPPER magazine	P.O. Box F, Titusville FL 32780
COMPUTHINK	3260 Alpine Rd., Menlo Park CA 94025
CONNECTICUT MICROCOMPUTER	34 Del Mar Dr., Brookfield CT 06804
CREATIVE COMPUTING magazine & software	P.O. Box 789-M, Morristown NJ 07960
EASTERN HOUSE SOFTWARE	3239 Linda Dr., Winston-Salem NC 27106
EDUCATIONAL ACTIVITIES	P.O. Box 392, Freeport NY 11520
ELCOMP PUB. CO.	3873L Schaefer Av., Chino CA 91710
ETCETERA INTERNATIONAL	P.O. Box G, Apex NC 27502
FANTASY GAMES SOFTWARE	P.O. Box 1683, Madison WI 53701
FSS SOFTWARE	P.O. Box 8403, Austin TX 78712
HUMAN ENGINEERED SOFTWARE	3748 Inglewood Blvd #11, Los Angelos CA 90066
INFOWORLD magazine	375 Cochituate Rd., Framingham MA 01701
INSTANT SOFTWARE	Peterborough NH 03458
INTERFACE AGE	16704 Marquardt Av., Cerritos CA 90701
JINI MICRO SYSTEMS	P.O. Box 274, Riverdale NY 10463
KILOBAUD MICROCOMPUTING magazine	Peterborough NH 03458
KRELL SOFTWARE	21 Millbrook Dr., Stony Brook NY 11790
LEM-DATA PRODUCTS	P.O. Box 1080, Columbia MD 21044
META TECHNOLOGIES	2611 Brush Av., Euclid OH 44132
MICRO magazine	P.O. Box 6502, Chelmsford MA 01824
MICRO-ED, INC.	P.O. Box 24156, Minneapolis MN 55424
MICRO SOFTWARE SYSTEMS	P.O. Box 1442, Woodbridge VA 22193
MICRO TECHNOLOGY UNLIM.	P.O. Box 12106, 2806 Hillsborough, Raleigh NC 27605
MINNESOTA MICRO SYSTEM	514 Cedar Av, Minneapolis MN 55454
NEECO	679 Highland Av.,Needham MA 02194
OPTIMIZED DATA SYSTEMS	P.O. Box 595, Placentia CA 92670
PRINTOUT magazine	P.O. Box 48, Newbury RG16 OBD, Berkshire U.K.
PROFESSIONAL SOFTWARE	166 Crescent Rd., Needham MA 02194
PROGRAMMA INTERNATIONAL	6908 N. Naomi St., Burbank CA 91504
PROGRESS COMPUTER	8903 Greenback Ln., Orangevale CA 95662
PS SOFTWARE	P.O. Box 966, Mishawaka IN 46544
SKYLES ELECTRIC WORKS	231 E S. Whisman Rd., Mountain View CA 94041
SOFTSIDE SOFTWARE	305 Riverside Dr., New York NY 10025
SOURCE TELECOMMUNICATIONS	11616 Anderson Rd., McLean VA 22102
TNW CORPORATION	3351 Hancock St., San Diego CA 92110
TRANSACTOR magazine	3370 Pharmacy Av., Agincourt ONT CAN M1W 2K4
UNITED SOFTWARE OF AMERICA	750 3rd Av., New York NY 10017

USER RESPONSE

Now it's your turn. Help Midnite save PETdom with this response sheet. Anything you want in Issue 4 must reach us by June 1.

FIRST SOME PERSONAL DATA (ABBREVIATE WHEN POSSIBLE.)

Name: _____
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Telephones _____

NEXT, IF YOU'D LIKE TO REVIEW SOFTWARE, YOUR AREA OF SPECIALTY

GUEST REVIEWS ARE VERY WELCOME, ESPECIALLY IF THEY COME ON A WORD PRO DISK FILE. BE SURE TO INCLUDE THE PRICE & WHERE TO ORDER THE PRODUCT.

Sample format:
Product name, $cost from Company name & mailing address. Needs equipment. Not for incompatibilities. Protected? Type of product or main function. Good features. Bad features. Conclusion.-Your name

(Remember, we're mostly interested in what the ads don't tell us. And if your review is over 50 words, we'll probably edit it.)

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WHEN YOU SEND ENVELOPES FOR COMING ISSUES, WRITE "M # -- # LEFT" IN THE LOWER-LEFT CORNER ON THE ADDRESS SIDE, SO WE'LL KNOW WHAT ISSUES THEY ARE FOR.

FOR ATUG INFO, MARK "A/T INFO" IN THE SAME SPOT.

ATUG USERS, DO YOU SUBSCRIBE TO: MICRO? _____   COMPUTE? ____

FOR ATUG DISKS, SEND EASILY REUSABLE MAILER, QUALITY DISKETTE, REPLY LABEL & REPLY POSTAGE. IN LIEU OF THESE, SEND MONEY. SPECIFY DISK NAME DESIRED. OUR EXCHANGE FORMAT IS COMMODORE 2040 DISK, DOS 2.

FOR MAE-COMPATIBLE ASM/TED, ADD PROOF OF ASM/TED PURCHASE TO ABOVE. EXCHANGE VERSION FOR BASIC 3.0 ONLY.